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10/628,259

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Jih-Ru Hwu

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08/03/2006

TROXELL LAW OFFICE PLLC
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FALLS CHURCH, VA 22041

EXAMINER

PAK, JOHN D

ART UNIT

PAPER NUMBER

1616

DATE MAILED: 08/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/628,259

Applicant(s)

HWU ET AL.

Examiner

JOHN PAK

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15 and 17-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15 and 17-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claims 15 and 17-23 are pending in this application.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/26/2006 has been entered.

This application contains claims directed to the following patentably distinct species:

(A) a metal ionic compound with the formula $M^{+a}X^{-b}$, wherein M is Ni, Co, Mg, Mn, Cr, Ca, Fe, Cu, Ti, Al, Sb, Sn, Pb, Pd, Os, Os, Ru, Cd, Rh, Ir or NH_4 and X is an anionic moiety such as nitrate, sulfate or sulfite, acetate, oxalate, carboxylate (this species includes acetate, oxalate and other simple carboxylates);

(B) an ionic compound with the formula NX, wherein N is Li or K (claim 15 and dependents) or N is Li, Na or K (claims 19-20 and dependents) and X is an anionic moiety such as sulfite, acetate, succinate, all phosphates readable on the claims, ethylenediamine tetraacetate;

(C) an additive with the formula RY_z , wherein R is Li, K, Mg or Ca (claim 15) or R is Li, Na, K, Mg, Ca or Zn (claims 19-20 and dependents) and X is an anionic moiety such as nitrate, sulfate, carboxylate or all phosphates readable on the claims.

The species are independent or distinct because are each directed to divergent cationic and anionic moieties, which are combined to arrive at mixtures of distinct compositions.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, all claims (15 and 17-22) are generic with respect to at least two species and most of the claims are generic to all species. For clarity, applicant is advised that this election of species requires applicant to elect one single species for (A), (B) and (C): for example, lead nitrate for (A), lithium perchlorate for (B) and any claim-recited phosphate of magnesium for (C).

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species.
MPEP § 809.02(a).

It is recognized that a different restriction requirement was made in the original prosecution before this RCE. However, in many of the claims applicant has canceled

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the species that were taught in the previously applied prior art reference and applicant's amendment revealed the insufficiency of the previous restriction requirement vis-a-vis the undue search burden this application demands. Further, the MPEP recognizes the propriety of issuing different restriction requirements in many situations, including restricting when no restriction was made in the parent application or restricting differently after applicant already complied with the original restriction requirement. MPEP 811-811.04.

The distinctness of the various compounds in A, B and C are self-evident by the divergent chemical makeup of the multiple species. For example, in the absence of a nexus teaching that teaches equivalent interchangeability, a compound such as cobalt nitrate would not at all be suggestive of calcium acetate. Same goes for lithium acetate and potassium perchlorate, and lithium oxalate and magnesium hydrogen phosphate. Distinctness is multiplied by a factor of three thereafter because the claimed invention is directed to a mixture of the three ingredient categories A, B and C.

There would be undue burden in having to search and examine additional species. As already evidenced by the previously cited U.S. Patent No. 6,664,289 to Hansen, the prior art references are species-specific, precisely because substantially different species or mixtures thereof encompass separate subjects for inventive effort. Each of the different species requires searching in places where no pertinent prior art to the other inventions may exist. For example, just for (A), lead nitrate would require a search in class 424, subclass 652, whereas calcium oxalate carboxylate would require a search in class 514, subclass 557+. With so many structurally different species, which

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cannot be searched together, the search and examination of additional species would rise to a level that would be undue.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification and divergent subject matter, restriction for examination purposes as indicated is proper.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to JOHN PAK whose telephone number is **(571)272-0620**. The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Johann Richter, can be reached on **(571)272-0646**.

The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JOHN PAK
PRIMARY EXAMINER
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